

Docket No.: 8733.216.21-US  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re Patent Application of:  
John Z.Z. Zhong et al.

Application No.: Not Yet Assigned

Customer No.: 30827

Filed: March 15, 2004

Art Unit: N/A

For: HIGH APERTURE LCD WITH  
INSULATING COLOR FILTERS  
OVERLAPPING BUS LINES ON ACTIVE  
SUBSTRATE

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Examiner: Not Yet Assigned

**INFORMATION DISCLOSURE STATEMENT (IDS)**

MS Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement accompanies the continuation application submitted herewith. The listed references have been previously submitted in related case Serial No. 10/068,873 filed February 11, 2002.

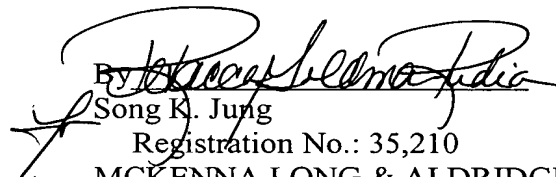
In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an admission that any

patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

Dated: March 15, 2004

Respectfully submitted,

  
By Song K. Jung Reg No. 41,786  
Registration No.: 35,210  
MCKENNA LONG & ALDRIDGE LLP  
1900 K Street, N.W.  
Washington, DC 20006  
(202) 496-7500  
Attorney for Applicant

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Substitute for form 1449A/B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/068,873-Conf. #2630
				Filing Date	February 11, 2002
				First Named Inventor	John Z.Z. Zhong
				Art Unit	2815
				Examiner Name	A. R. Wilson
				Attorney Docket Number	8733.216.20-US
Sheet	1	of	1		

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	AA				
	AB				
	AC				
	AD				
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	AH				
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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>3</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	BA	JP-06-242433	09-02-1994	KAZUHIRO et al.		
	BB	JP-04-307520	10-29-1992	TAKASHI		
	BC					
	BD					
	BE					
	BF					
	BG					
	BH					
	BI					
	BJ					

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NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA		
	CB		
	CC		
	CD		
	CE		

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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>		
				Application Number	10/068,873	
				Filing Date	February 11, 2002	
				First Named Inventor	John Z.Z. Zhong	
				Art Unit	2815	
				Examiner Name	Allan R. Wilson	
Attorney Docket Number	8733.216.20-US					
Sheet	1	of	1			

U.S. PATENT DOCUMENTS					
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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	BA	JP-06242433-A	09-02-1994	Kazuhiro et al.		
	BB	JP-07028093-A	01-31-1995	Masaharu		
	BC	JP-06208137-A	07-26-1994	Kiyoshi		
	BD	JP-07128670-A	05-19-1995	Kazuhiro et al.		
	BE	JP-07146491-A	06-06-1995	Masumitsu et al.		
	BF	JP-04268532-A	09-24-1992	Naonori et al.		
	BG	JP-05326636-A	12-10-1993	Katsunori		
	BH	JP-05326641-A	12-10-1993	Katsunori		
	BI	JP-04199029-A	07-20-1992	Kenichi et al.		
	BJ	JP-06123873-A	05-06-1994	Shunpei et al.		
	BK	JP-06123878-A	05-06-1994	Masaaki et al.		
	BL	JP-02308226-A	12-21-1990	Yuji et al.		

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		Number-Kind Code <sup>2</sup> (if known)			
	AA	5,229,644-A1	07-20-1993	Wakai et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	BA	EP-0 490 335-A2	06-17-1992	Kennedy et al.		
	BB	EP-0 603 866-A1	06-29-1994	Noda et al.		

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA	D. Perettie et al., "Benzocyclobutene as a Planarization Resin for Flat Panel Displays," Proceedings of the Spie, Vol. 1665, 11-13 February 1992, pp. 331-337	
	CB	Abstract of Japanese Patent Publication No. 06242467, dated 09/02/94	
	CC	Abstract of Japanese Patent Publication No. 02196221, dated 08/02/90	
	CD	Abstract of Japanese Patent Publication No. 04163528; dated 06/09/92	
	CE	Abstract of Japanese Patent Publication No. 04291240; dated 10/15/92	
	CF	Abstract of Japanese Patent Publication No. 03242625, dated 10/29/91	
	CG	M.J. Radler et al., "Cyclotene Advanced Electronics Resins for High-Aperture AMLCD," SID 96 Applications Digest, pp. 33-36	

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**Notice of References Cited**

Application/Control No.

10/068,873

Applicant(s)/Patent Under  
Reexamination  
ZHONG ET AL.

Examiner

Allan R. Wilson

Art Unit

2815

Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,914,761	06-1999	Ohe et al.	349/132
	B	US-6,507,045	01-2003	Gu et al.	257/72
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

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Art Unit

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,994,721	11-1999	Zhong et al.	257/440
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

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PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY  
APPLICANT  
(Use Several Sheets if Necessary)Attorney Docket No.  
8733.216.20Application No.  
TBAApplicant  
John Z. Z. ZHONG et al.Filing Date  
January 10, 2002Group  
TBA

Date: January 10, 2002

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL*	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	4,470,667	9/1984	Okubo et al.			
	4,704,559	11/1987	Suginoya et al.			
	4,654,117	3/1987	Aoki et al.			
	5,003,356	3/1991	Wakai et al.			
	5,182,620	1/1993	Shimada et al.			
	5,287,208	2/1994	Shimoto et al.			
	5,302,987	4/1994	Kanemori et al.			
	5,414,278	5/1995	Kobayashi et al.			
	5,414,283	5/1995	Den Boer et al.			
	5,414,547	5/1995	Matsuo et al.			
	5,419,991	5/1995	Segawa			

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	Radler et al. "Bensocyclobutene Dielectric Resins for Flat Panel Display Applications."
	Suzuki. "Invited Address: High-Aperture TFT Array Structures." SID 94 Digest.
	Takeda et al. "A 6.4-in-Diagonal Color TFT-LCD Module Suitable for Personal Information Tools." SID 94 Digest.

EXAMINER

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\*\*English-language abstract provided.



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EXAMINER INITIAL*	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,426,523	6/1995	Shimada et al.			
	5,446,562	8/1995	Sato			
	5,453,857	9/1995	Takahara			
	5,457,553	10/1995	Mori			
	5,463,230	10/1995	Negoto et al.			
	5,532,180	7/1996	den Boer et al.			
	5,539,219	7/1996	den Boer et al.			
	5,641,974	6/1997	den Boer et al.			
	5,650,358	7/1997	Gu et al.			
	5,818,550	10/1998	Kadota et al.			
	5,585,951	12/1996	Noda et al.			

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	Ueda. "A High Aperture Ratio TFT-LCD With a Shield-Electrode Structure." SID 93 Digest.
	Vignolle et al. "Optimisation of Very Small Pitch Active Matrix LCD for Projection." IEEE, 1991.
	Kim et al. "High-Aperture and Fault-Tolerant Pixel Structure for TFT-LCDs." SID 95 Digest.

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	5,418,635	5/1995	Mitsui et al.			
	5,568,289	10/1996	Kishida			
	5,886,365	3/1999	Kouchi et al.			
	4,994,434 A	2/1991	Hung et al.	505	1	
	5,389,492 A	2/1995	Kokubo et al.	430	191	
	5,396,262 A	3/1995	Hastings, III	345	92	
	5,422,293 A	6/1995	Konya	438	155	
	5,445,898 A	8/1995	Budzilek et al.	428	690	
	5,463,484 A	10/1995	Brody	359	68	
	5,528,209 A	6/1996	Macdonald et al.	333	247	
	5,398,126 A	3/1995	Takao et al.	359	68	

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION
10-133165	5/1998	JAPAN	

## OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

	Sakamoto et al. "A High-Aperture Ratio 3-in-Diagonal VGA a-Si Light Valve with Pixel/Data and Pixel/Gate Lines Overlapping." SID 96 Digest.

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